## AMENDMENTS TO THE CLAIMS

The listing of claims provided below will replace all prior versions, and listings, of claims in the application.

**Listing of claims**

1. (Currently Amended) A method for protecting against vitrectomy-related cataract development comprising

(i) providing a low oxygen-concentration vitreous replacement solution, wherein a portion of oxygen is removed from an initial vitreous replacement solution by a method selected from the group consisting of introducing an essentially-oxygen-free gas into the initial vitreous replacement solution, subjecting the initial vitreous replacement solution to a vacuum, and a combination of introducing an essentially-oxygen-free gas into the initial vitreous replacement solution and subjecting the initial vitreous replacement solution to a partial vacuum;

(ii) replacing, during vitrectomy, vitreous humor with the low oxygen-concentration vitreous replacement solution in a subject in need of such treatment.

2. (Original) The method of claim 1, wherein the oxygen concentration of the low oxygen-concentration solution is between about 0% and about 2%.

3. (Original) The method of claim 2, wherein the oxygen concentration is about 0%.

4. (Original) The method of claim 1, wherein the low-oxygen-concentration solution includes reduced glutathione and ascorbic acid.

5. (Original) The method of claim 1, wherein the low-oxygen-concentration solution includes reduced glutathione.

6. (Original) The method of claim 5, wherein the glutathione in the solution has a concentration between about 0.01 mM and about 10 mM.

7. (Original) The method of claim 6, wherein the glutathione concentration is between about 0.1 mM: and about 2 mM.

8. (Original) The method of claim 7, wherein the glutathione concentration is about 1 mM.

9. (Canceled)

10. (Canceled)

11. (Previously presented) The method of claim 1, wherein the initial solution is subjected to the at least a partial vacuum for about 10 minutes to about 15 minutes.

12. (Canceled)

13. (Previously presented) The method of claim 1, wherein the essentially-oxygen-free gas is an inert gas.

14. (Previously presented) The method of claim 1, wherein the essentially-oxygen-free gas is a noble gas.

15. (Previously presented) The method of claim 1, wherein the essentially-oxygen-free gas is nitrogen gas.

16. (Previously presented) The method of claim 1, wherein the essentially-oxygen-free gas is introduced into the initial solution by bubbling the gas through the initial solution, thereby producing a low-oxygen-concentration solution.

17. (Original) The method of claim 16, wherein the gas is bubbled through the initial solution for about 10 minutes immediately prior to introduction of the low-oxygen-concentration solution into an eye of a subject.

18. (Original) The method of claim 1, wherein the low-oxygen-concentration solution includes ascorbic acid.

19. (Original) The method of claim 18, wherein the ascorbic acid in the solution has a concentration that is sufficiently high to protect against cataract development in a subject.

20. (Original) The method of claim 18, wherein the ascorbic acid concentration is between about 0 mM and about 10 mM.

21. (Original) The method of claim 20, wherein the ascorbic acid concentration is between about 0.5 mM and about 5 mM.

22. (Original) The method of claim 21, wherein the ascorbic acid concentration is between about 1 mM and about 3 mM.

23. (Original) The method of claim 22, wherein the ascorbic acid concentration is about 2 mM.

24-30. (Canceled)